(12)特許協力条約に基づいて公開された国際出題 0/533691

(19) 世界知的所有権機関 国際事務局



. SECTE BENEFIT I STEPP TER GERN SEEN BENEFIT IN 18 IN 18

(43) 国際公開日 2005年3月17日(17.03.2005)

PCT

(10) 国際公開番号 WO 2005/023547 A1

(51) 国際特許分類7:

B41J 2/05

(21) 国際出願番号:

PCT/JP2004/012857

(22) 国際出願日:

2004年9月3日(03.09.2004)

(25) 国際出願の言語:

日本語

(26) 国際公開の言語:

日本語

(30) 優先権データ: 特願2003-311625

2003年9月3日(03.09.2003)

(71) 出願人 (米国を除く全ての指定国について): ソニー 株式会社 (SONY CORPORATION) [JP/JP]; 〒1410001 東京都品川区北品川6丁目7番35号 Tokyo (JP).

(72) 発明者; および

(75) 発明者/出願人 (米国についてのみ): 牛ノ▼濱▲ 五 輪男 (USHINOHAMA, Iwao) [JP/JP]; 〒1410001 東京 都品川区北品川6丁目7番35号ソニー株式会社内 Tokyo (JP). 池本 雄一郎 (IKEMOTO, Yuichiro) [JP/JP];

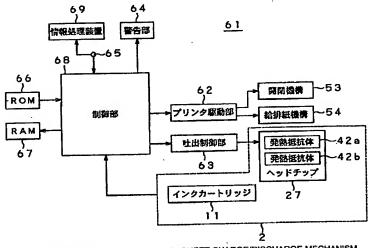
〒1410001 東京都品川区北品川6丁目7番35号ソ 二一株式会社内 Tokyo (JP). 竹中 一康 (TAKENAKA, Kazuyasu) [JP/JP]; 〒1410001 東京都品川区北品川 6丁 目7番35号ソニー株式会社内 Tokyo (JP). 江口 武夫 (EGUCHI, Takeo) [JP/JP]; 〒1410001 東京都品川区北 品川6丁目7番35号ソニー株式会社内 Tokyo (JP).

- (74) 代理人: 小池晃,外(KOIKE, Akira et al.); 〒1000011 東京都千代田区内幸町一丁目1番7号大和生命ビル 11階 Tokyo (JP).
- (81) 指定国 (表示のない限り、全ての種類の国内保護が 可能): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

/続葉有]

(54) Title: LIQUID EJECTOR AND LIQUID EJECTING METHOD

(54) 発明の名称: 液体吐出装置及び液体吐出方法



11...INK CARTRIDGE

27...HEAD CHIP

42a...HEATING RESISTOR 42b...HEATING RESISTOR

53...OPEN/CLOSE MECHANISM

54...SHEET CHARGE/DISCHARGE MECHANISM

62...PRINTER DRIVE SECTION

63...EJECTION CONTROL SECTION

64...ALARM SECTION

68...CONTROL PORTION

69...INFORMATION PROCESSOR

(57) Abstract: A liquid ejector for ejecting ink from an ejection opening, comprising a control section (68) for controlling an ejection control section (63). The control section controls the ejection control section with reference to a pulse current being supplied to one of a pair of heating resistors (42a, 42b) such that the other heating resistor is supplied with a pulse current while supply timing of this pulse current is being shifted from that of the reference pulse current within 20% of the reference pulse current supply time. Since a variation in shooting position of ink liquid drops ejected while varying the ejecting direction can be suppressed, deterioration of image quality due to irregular color tone, a white streak, etc. can be prevented and excellent image quality can be ensured in printing.

/続葉有/

ABSTRACT

The present invention is directed to a liquid discharge apparatus adapted for discharging inks from discharge holes, which comprises a control unit (68) for controlling a discharge control unit (63), wherein the control unit controls the discharge control unit in such a manner that pulse current delivered to one of a pair of heating resistors (42a), (42b) is caused to be reference, and pulse current is delivered to the other heating resistor in the state where timing is shifted in a time of the range within 20% of supply time of pulse current serving as reference with respect to supply timing of pulse current serving as reference. Thus, it is possible to suppress unevenness or variation of impact positions of ink droplets discharged in the state where discharge direction has been changed. As a result, deterioration of picture quality resulting from color tone unevenness and/or white stripe, etc. is prevented. Thus, print operation can be performed at excellent picture quality.